

FIGURE 1

Murine CARP promoter (SEQ ID NO : 1)

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1 ggatcctttc atgtttaaca atatcaaccc taaccaagg ggaacagcct gcctgacagt
61 ggcttttgcca cccatgaata cttcctagtc tagtcggtt gtgaaactca gcccatccca
121 acacttctgc aagcccatc cttacaagg tgctcattgg gaatttcctg gagcttctct
181 ttcaggatca gcctgattct agggcagcag ttctcaacct gggggcctcg acccctttgg
241 gggaaatcaaa cgacccttta caggggtcac atatcatcta tcctatatgt caggatatta
301 cattacgatt cgtaacagta gcaaaattac aggtatgaaa tagcaatgaa ataattttat
361 gattgaaggt caccacaaca tgaggccgcc aactgttct agagaaaaat cacctgggtg
421 gggaaaggtt tgggaaagcc tttctgtcca ttcttcattc ttcaaagtga tgtgttcaca
481 gaaagccttt cagctgttct gctggggctc ttagtaagtc tgagtaggaa ctgtatgtac
541 caggctctgtc tcttatgggt ggagccaaga cgcctcgtgg gtggagcgaa gacgcaacct
601 caccttctag ctctgcatcc atagcaagta gcctaattgt tctgtgtcta ggtgtcatct
661 ctgtgaatcg agatccttgg ccttgcttga attagggagg cacaaaatac tcagagattc
721 aagactgctc agcagcccag agtccttcct caaaggaaaag gtctcaactc tcagccccc
781 ttagctctga gtcaggcctg gaacaaacgg ccacaggaat gagaaaagct gccatagctg
841 cttgtcactt caagagggtca aagaaaatag tgtaaacctat gaaaacgaga agaccaacag
901 ttatccattg atagcgtctc aggacagata ggacagagag aacactagga gaggggaacc
961 cacgaaggac aaggtattag tgtgttggtt ttcagggcaa tgcctgttac tgaagattct
1021 agaaacacaa tttgtcgtt gaacagctga agtgggggtgg gggttcttac cccatgttca
1081 tggaagggtg agtgaggaga gacagatata tgatggccag cataacaaac atacacaaca
1141 ccctaattaa cactccctc tttactgac accccttca ctctctctt tcataaaaaa
1201 taaaaaaagt attttatgtg gctcttacga tagaatctt cctcgaacta taaaaagatc
1261 taaatattta tatttttcac attttaatat cttagcgatg acaagccaga aacaagtatt
1321 ttttgctctc ctcaacagca aagcttgggg cctttttgtt tccgtgttag gaatagaaca
1381 cgagagcccc gtgtatctag gcagatgctc tatcattagc ccatgagtct ccagcctcag
1441 acgcacattt ttctcggtc ctcttaagct tttccacag cattgggaaa ctttactgac
1501 agcatccaag ttgtgcttct gctaagaact ggactcacat ctctctgtgc atcacttcgg
1561 cccgttttgg ggtagatcct ctgattagcc ttcagattta gaacacgtg agcctgtggt
1621 gcactaatta tggccagtga caccatagag tcaaagtgca ttactgaatg ctttcaattt
1681 ctccaatgac tggtagatg gcatgtcaca gggccatttt agctgcagac atcactccag
1741 agaattccaa acagatagag acaagtggca cccagacca tctccttccc ctcggtctga
1801 ttatccccag aaataggatg tcccaaagca aacttccca gccaaactga gtgctgataa
1861 gtccagttaa cagaaagata tgggtgtaag tgtgatgcac agtgcttgca ttttcttgat
1921 acgttagtca tatgagagc gacaaagaag gaaaaagagc agcgatgtgg tgcaatatta
1981 acaggcagct gtcccctggc ttcccgatac gtgggatgac tcgcattgct gagcgggtg
2041 gtcactgcca aaggaatgac cctctcacat ttcttctga ttgcatacg ccgcgccag
2101 cttgtcatct cctcttggg cttcccagac actaagtctg gaatgaaat tcacctgcct
2161 ctgaattggc cactggtggg ggcaggggtg tgacttggct tcccaggctg gaagattatc
2221 tcaccagccc ctactatat aacgggctgg tgtggagggg ctccacaggg ccagttccag
2281 gggttcatcc acaagagaga aaaacataga ctcgaggtct agggagcttg catgcctgca
2341 ggtcggaggc caccatgg

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FIGURE 2

Human CARP promoter (SEQ ID NO :2)

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1  ctgcagcaag ttacttaatg ttttttgcc tgcagcatcctc tctgtaaaaat gagagcatta
61 gtcttgctcc aacttcgagg gcatggacag ctctgggatt tcatatccaa gacccttaaa
121 catcccacag tcttccccc aaacacttct cctcctaata cctccctcag tttgggtcag
181 gcctggaaca aaaaggcata cgaaatggta gaaaaagtgt ccatgactac ttctgactta
241 gatgaagaga ccaatgaaaa tagtaatgac tctgtttgct tcagcaggac atatactaaa
301 ataggagcta tacaaagaag attagcatgg actctgtgca agaattgacac acaaatttgt
361 gaaacattcc atatattaaa aataaataaa taataaagag aaaaggaaaa aattaaaaag
421 aaaatagtga tagctgtgtc catctcaaag aaaagcccag gagatttcct ttatttacc
481 cctttaagat agaattattg gagaccggaa catatgatac aggaggtact gggagggtcc
541 ctctttgtca atgtttgtc ttgggggtggg gactcgatgt cttctcaaag ttcagaaaac
601 accatccact gactgagcat tcaaggggca agaggagaat ggcagccaca tttgttgatt
661 ggggtgagttt ggggagaaat agacacacaa aggtcaaaaca taacttccta attaacactt
721 cctccattcc acaattccct tctccattc ttctctctg tcttttacts akaraaaacc
781 agtttttctc gaaactataa aaataccccc agtatgttta cataatttac acctcaaaga
841 ttagaaaacca gaaatagaga ccttttcaac ccttcggaa gcaaagtga ttatccctcc
901 agccacgtgt ctcaaatctt gatgcatcag aatcatctgg gtgctttkaa attcaagatg
961 attcctacga gttaccataa atcaactcag aattccctgg agtggggcca gggatctgta
1021 tttctgacaa gctcccacag gtgattcctt tccccacagc atttgagaac ttcagctcaa
1081 tgacctaatc agagtcctgc cattgcta atctggtctc atttttbtca tatatatata
1141 tagtatttgt ggtagagatg ggattttgcc atgttgcca ggctagtatt gaactcctaa
1201 gctaagcaat ctctctgtct ctgcctccca aaatgttggg attacagggt taagccactg
1261 caccggctg atagctggtt tcatttactc tatttcttga ccactctgat ccattttgaa
1321 gtaaaaatgc tccaattatt atgctgtttt agaacacggt aagcatgtca tgtgctaata
1381 gccagtga caataaaaga aaagtgcatt actgaatgct ttcaatgtct tataatgatg
1441 gtaagggtgg atgtcatggg gcctatttag ccagacatc actccaaaga attccaaaca
1501 gatatagaca agtgcccttta gggcccagat cccttccct caggctgttt acccagggaa
1561 taggatgtcc tgggacaagt ttcccctaag tgaagtgtg ataagtctgc ttatcagaaa
1621 gatattactg ggggtgtgat atgtagggca tctacatttt ctgatagggt agtcatatga
1681 aagctgacaa agaaaaaaag ggcagtgatg tggtgcaatg tcaacagaca gctgtccctt
1741 gactcttgac aaataggatg acttgcatct ctgagcgatg tgatcaccac caaagggaatg
1801 gccctctcac atttcttctc gattcacata ttcagcaggg ttagcttctc ctccctccc
1861 tcttcagctt ccagacact gagtctggaa tgaaaattca cctgcctctg agttggctcc
1921 taatgggggc gggagtgtta cttcggttcc cagggttgaa gattatctca cccggcccca
1981 gctatataag ctgaccggtg tggaggggccc cagcagggccc aactccaggg attccttcca
2041 cgacagaaaa acatacaaga ctccttcagc caac

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FIGURE 3

Human CARP promoter (-2702/+38) SEQ ID NO : 3

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gtgaacttttat gggaaggatg cttctgaaaa acaaatgaca gaaaactctc cgccagggga atttttttct caattttgat
gaataagaac gatttgaaaa tacaatgggt gttgttttta tctttttaga gagctaaagg tgcctagaat ctcttttcaa
aaagcagatt ctctcatgtt ttttttcttt atttggtgtc atattctttt tacatcttct gaccacttat cctcaagttg
tacctctcat gttttataat gacaagctgg atcaacatgg gaaaagggtg aactggcagt gatttcacca gccctgacat
ccttgcatcc accagcgtgc tcctttaagt tcagccatt ccatcaactc atcttcaagt gtcacctct gcaaagtttt
cttcaagact tcctggagcc tctctataga atcagctagg tttcaaggga taattaaatg cctggagaaa gaaaagggct
tggtaaagcct cctgcccac tttcacttgc attctttgag gtgattgaaa cagtaaggag ccatttaatc agttttgggt
gcatcctgag tgggtctagg tgagacttgc cctaggaaat cttttgggct caatgattgt ctgcttctgt tggatggaat
caggactctt caacctagca ttcaccaact agctgtgcat ctgcagcaag ttacttaatg tttctttgcc tcagcatcct
ctctgtaaaa tgagagcatt agtcttgctc caacttcgag ggcatggaca gctctgggat ttcatatcca agaccttaa
acatcccaca gtcttcccc caaacacttc tctcctaact acctccctca gtttgggtca ggcctggaac aaaaaggcat
acgaaatggt agaaaaagtg tccatgacta cttctgactt agatgaagag accaatgaaa atagttaatga ctctgtttgc
ttcagcagga catatactaa aataggagct atacaaagaa gatttagcatg gactctgtgc aagaatgaca cacaatttg
tgaaacattc catatattaa aaataaataa ataataaaga gaaaaggaaa aaattaaaaa gaaaatagtg atagctgtgt
ccatctcaaa gaaaagccca ggagatttcc ttttaattaac ccccttttaa gatagaatat taggagaccg gaacatatga
tacaggaggt actgggaggg tccctctttg tcaatgtttt gtcttggggg ggggagtcga tgtcttctca aagtttcaga
aacaccatcc actgactgag cattcaaggg gcaagaggag aatggcagcc acatttggtg attgggtgag tttggggaga
aatagacaca caaagggtcaa acataacttc ctaattaaca ctccctcca ttcacaattc ccttctccca tctctctctc
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gattagaac cagaaataga gacctttttc aaccttccg gaagcaaatg gcattatccc tccagccacg tgtctcaaat
cttgatgcat cagaatcatc tgggtgcttt gaaattcaag atgattccta cgagttacca taaatcaact cagaattccc
tgagtgggg cccagggatc tgtatttctg acaagctccc acaggtgatt cctttcccca cagcatttga gaacttcagc
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gatgggattt tgccatgttg cccaggctag tattgaactc ctaagctaag caatcttctt gtctctgcct cccaaaatgt
tggtgattaca ggtgtaagcc actgcacccg gctgatagct ggtttcattt actctatttc ttgaccactc tgatccattt
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gtgatatgta gggcatctac attttcttga taggtagtca tatgaaagct gacaaagaaa aaaagggcag tgatgtggtg
caatgtcaac agacagctgt cccctgactc ttgacaaata ggatgacttg cattgtctgag cgatgtgac accacaaag
gaatggccct ctcacatttc ttcttgatcc acatattcag caggggttagc ttgtcctccc ctccctcttc agcttcccag
acactgagtc tggaatgaaa attcacctgc ctctgagttg gctcctaag ggggcgggag tgttacttcg gttcccagg
tggaagatta tctcaccg cccagctat ataagctgac cgtgtggag gggccagca gggccaactc cagggattcc
ttccacgaca gaaaaaac

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FIGURE 4

Human CARP promoter (-2108/+38) SEQ ID NO : 4

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taggaaat cttttgggct caatgattgt ctgcttctgt tggatggaat caggactctt caacctagca ttcaccaact
agctgtgcat ctgcagcaag ttacttaatg tttctttgcc tcagcatcct ctctgtaaaa tgagagcatt agtcttgctc
caacttcgag ggcacggaca gctctgggat ttcatatcca agacccttaa acatcccaca gtccttcccc caaacacttc
tcctccta atacctcca gtttgggtca ggcctggaac aaaaaggcat acgaaatggg agaaaaagtg tccatgacta
cttctgactt agatgaagag accaatgaaa atagtaatga ctctgtttgc ttcagcagga catatactaa aataggagct
atacaaagaa gattagcatg gactctgtgc aagaatgaca cacaaatttg tgaaacattc catatattaa aaataaataa
ataataaaga gaaaaggaaa aaattaaaaa gaaaatagtg atagctgtgt ccatctcaaa gaaaagccca ggagatttcc
ttaattaac ccccttttaa gatagaatat taggagaccg gaacatatga tacaggagggt actgggagggt tccctctttg
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gcaagaggag aatggcagcc acatttgttg attgggtgag tttggggaga aatagacaca caaagggtcaa acataacttc
ctaattaaca cttccctcca ttcacaattc ccttctccca tttcttctc ctttctttta ctgaaaaaaa cccagttttt
cctgaaacta taaaaatacc ccagtatttt tacataattt acacctcaa gattagaaac cagaaataga gacctttttc
aacccttccg gaagcaaagt gcattatccc tccagccacg tgtctcaaat ctgatgcat cagaatcatc tgggtgcttt
gaaattcaag atgattccta cgagttacca taaatcaact cagaattccc tggagtgggt cccagggtac tgtatttctg
acaagctccc acaggtgatt cctttcccca cagcatttga gaacttcagc tcaatgacct aatcagagtc ctgccattgc
taataactgg tctcattttt ttcatatata tatatagtat ttttggtaga gatgggattt tgccatgttg cccagggtag
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agacaagtgc ctttagggcc cagatccctt cccctcaggc tgtttaccca gggaaatagga tgtcctggga caagtttccc
ctaagtgaag tgttgataag tctgcttacc agaaagatat tactgggggt gtgatatgta gggcatctac attttcttga
taggtagtca tatgaaagct gacaaagaaa aaaagggcag tgatgtggtg caatgtcaac agacagctgt cccctgactc
ttgacaaata ggatgacttg cattgctgag cgatgtgac accaccaaag gaatggccct ctcacatttc ttcttgattc
acatattcag cagggttagc ttgtcctccc ctccctcttc agcttcccag acactgagtc tggaaatgaaa attcacctgc
ctctgagttg gctccta atg ggggcgggag tgttacttcg gttcccagg tgggaagatta tctcaccggg ccccgactat
ataagctgac cgggtgtggag gggcccagca gggccaactc cagggtattcc ttcacagaca gaaaaacc

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FIGURE 5

Human CARP promoter (-2011/+38) SEQ ID NO : 5

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      ag ttacttaatg tttctttgcc tcagcatcct ctctgtaaaa tgagagcatt agtcttgctc caacttcgag
ggcatggaca gctctgggat ttcatatcca agacccttaa acatcccaca gtccttcccc caaacacttc tcctccta
acctccctca gtttgggtca ggcctggaac aaaaaggcat acgaaatggg agaaaaagtg tccatgacta cttctgactt
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gattagcatg gactctgtgc aagaatgaca cacaaatttg tgaacatttc catatattaa aaataaataa ataataaaga
gaaaaggaaa aaattaaaaa gaaaatagtg atagctgtgt ccatctcaaa gaaaagccca ggagatttcc ttaattaac
ccccttttaa gatagaatat taggagaccg gaacatatga tacaggaggt actgggaggg tccctctttg tcaatgtttt
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aatggcagcc acatttggtg attgggtgag tttggggaga aatagacaca caaagggtcaa acataacttc ctaattaaca
cttccctcca ttcacaattc ccttctccca tttctctctc ctttctttta ctgaaaaaaa cccagttttt cctgaaacta
taaaaatacc ccagtatttt tacataattt acacctcaaa gattagaaac cagaaataga gacctttttc aaccttccg
gaagcaaagt gcattatccc tccagccacg tgtctcaaat cttgatgcat cagaatcatc tgggtgcttt gaaattcaag
atgattccta cgagttacca taaatcaact cagaattccc tggagtgggg ccagggtatc tgtatttctg acaagctccc
acaggtgatt cctttcccca cagcatttga gaacttcagc tcaatgacct aatcagagtc ctgccattgc taataactgg
tctcattttt ttcatatata tatatagtat ttttggtaga gatgggattt tgccatgttg ccaggcttag tattgaactc
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cggtaaagcat gtcatgtgct aatggccagt gacatcataa aagaaaagtg cattactgaa tgctttcaat tttctataat
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gctcctaag ggggcggggag tgttacttcg gttcccaggt tggaagatta tctcacccgg cccagctat ataagctgac
cgggtgtggag gggccacagca gggccaactc cagggtattcc ttccacgaca gaaaaacc

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FIGURE 6

Human CARP promoter (-1543/+38) SEQ ID NO : 6

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taac ccccttttaa gatagaatat taggagaccg gaacatatga tacaggaggt actgggaggg tccctctttg
tcaatgtttt gtcttggggt ggggagtcga tgtcttctca aagtttcaga aacaccatcc actgactgag cattcaaggg
gcaagaggag aatggcagcc acatttggtg attgggtgag tttggggaga aatagacaca caaagggtcaa acataacttc
ctaattaaca cttccctcca ttcacaattc cttctccca ttcttctctc ctttctttta ctgaaaaaaa cccagttttt
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aacccttccg gaagcaaagt gcattatccc tccagccacg tgtctcaaat cttgatgcat cagaatcatc tgggtgcttt
gaaattcaag atgattccta cgagttacca taaatcaact cagaattccc tggagtgggg cccagggatc tgtatttctg
acaagctccc acaggtgatt cctttcccca cagcatttga gaacttcagc tcaatgacct aatcagagtc ctgccattgc
taataactgg tctcatTTTT ttcatatata tatatagtat ttttggtaga gatgggattt tgccatgttg cccaggctag
tattgaactc ctaagctaag caatcttcct gtctctgcct cccaaaatgt tgggattaca ggtgtaagcc actgcacccg
gctgatagct ggtttcattt actctatttc ttgaccactc tgatccattt tgaagtaaaa atgctccaat tattatgctg
ttttagaaca cggtaagcat gtcattgtgt aatggccagt gacatcataa aagaaaagtg cactactgaa tgctttcaat
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agacaagtgc ctttagggcc cagatccctt cccctcaggc tgtttaccca gggaatagga tgtcctggga caagtttccc
ctaagtgaag tggtgataag tctgcttatac agaaagatat tactgggggt gtgatatgta gggcatctac attttcttga
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ctctgagttg gctcctaatg ggggcgggag tgttacttcg gttcccaggt tgggaagatta tctcaccggy ccccgactat
ataagctgac cgggtgtggag gggcccagca gggccaactc cagggattcc ttccacgaca gaaaaaac

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FIGURE 7

Human CARP promoter (-772/+38) SEQ ID NO : 7

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aca ggtgtaagcc actgcacccg gctgatagct ggtttcattt actctatttc ttgaccactc tgatccattt
tgaagtaaaa atgctccaat tattatgctg ttttagaaca cggtaagcat gtcatgtgct aatggccagt gacatcataa
aagaaaagtg cactactgaa tgctttcaat ttcttataat gatggtaagg tggcatgtca tggggcctat ttagccccag
acatcactcc aaagaattcc aaacagatat agacaagtgc ctttagggcc cagatccctt cccctcaggc tgtttaccca
gggaatagga tgtcctggga caagtttccc ctaagtgaag tgttgataag tctgcttacc agaaagatat tactgggggt
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```

FIGURE 8

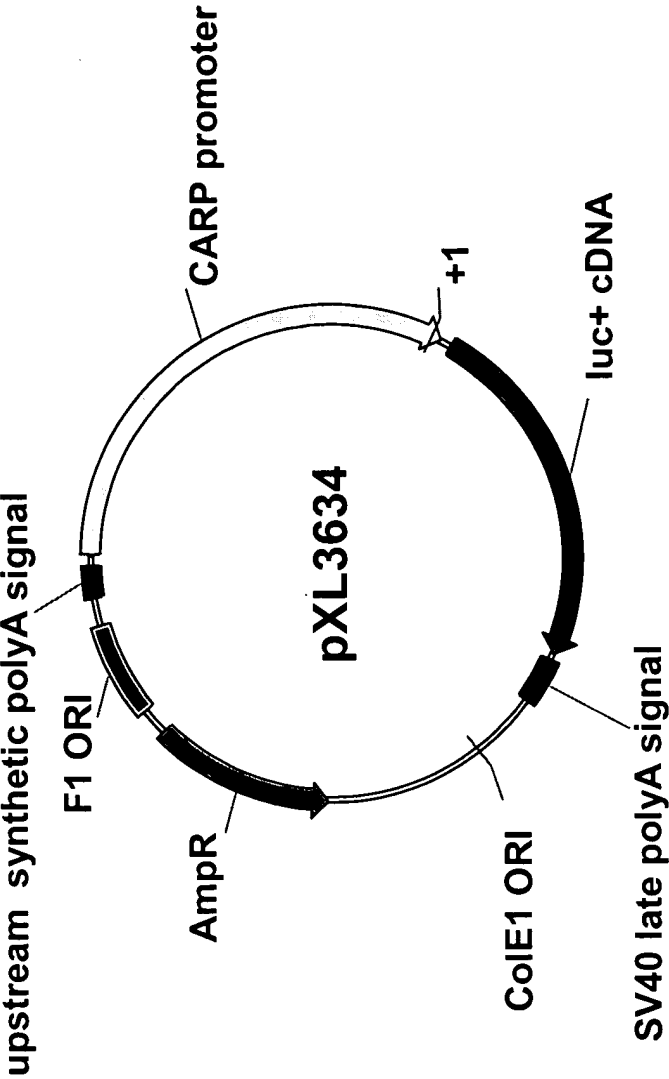


FIGURE 9

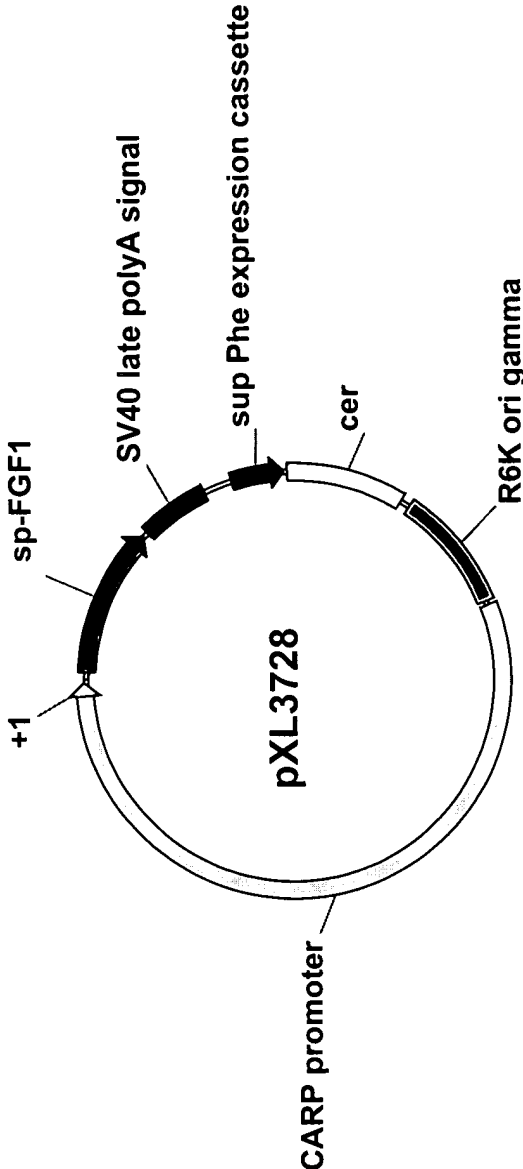


FIGURE 10

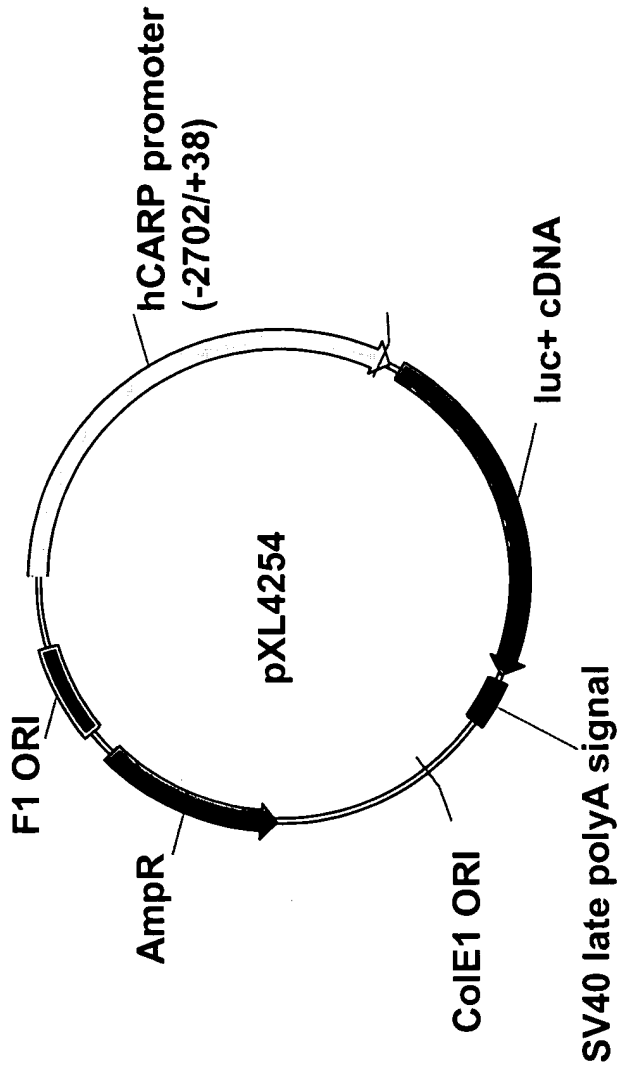


FIGURE 11

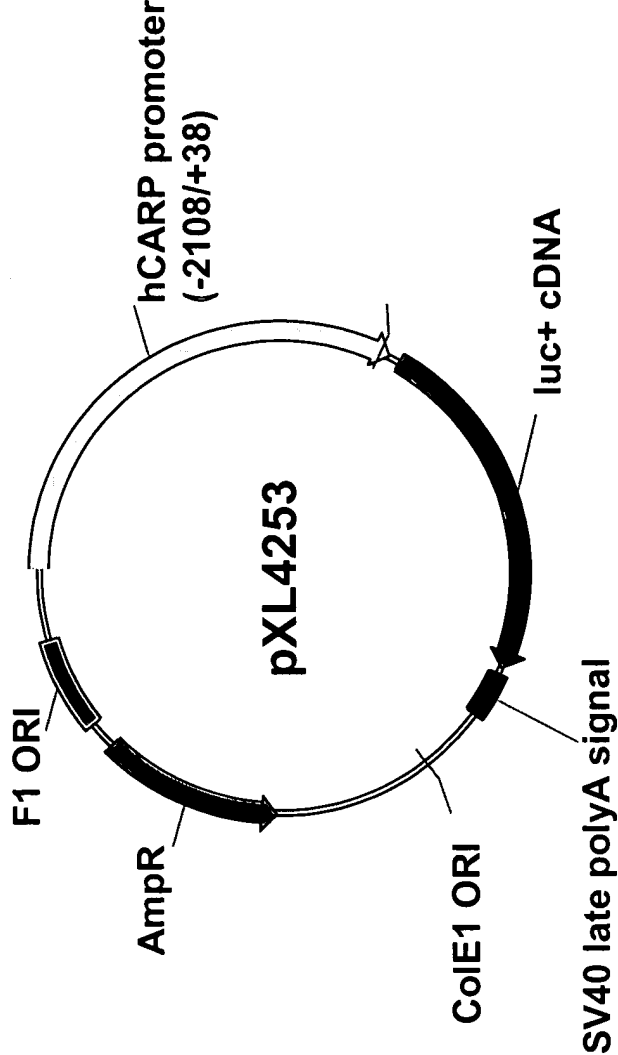


FIGURE 12

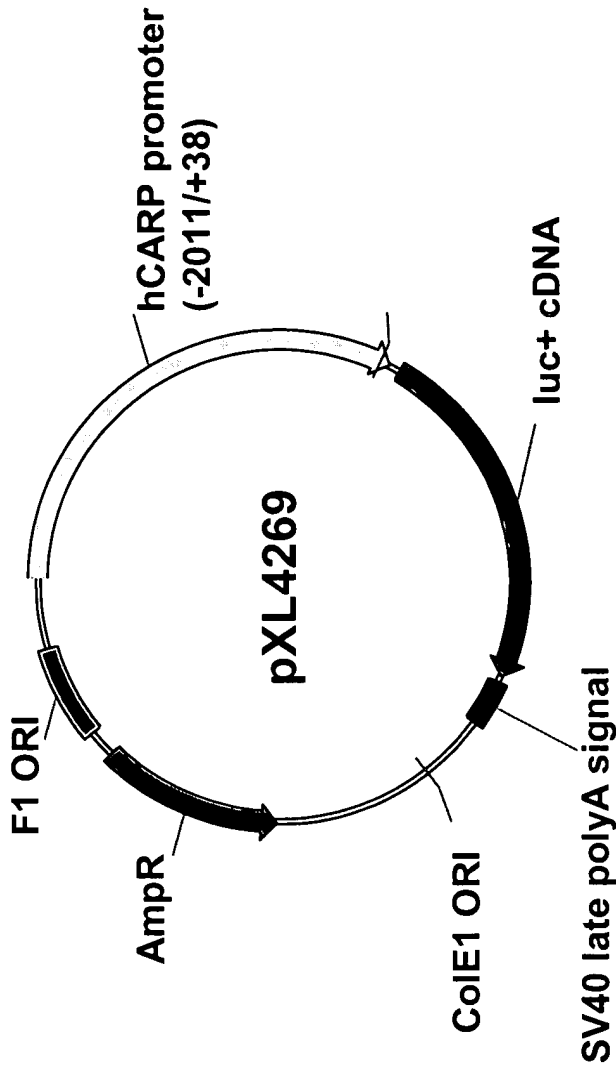


FIGURE 13

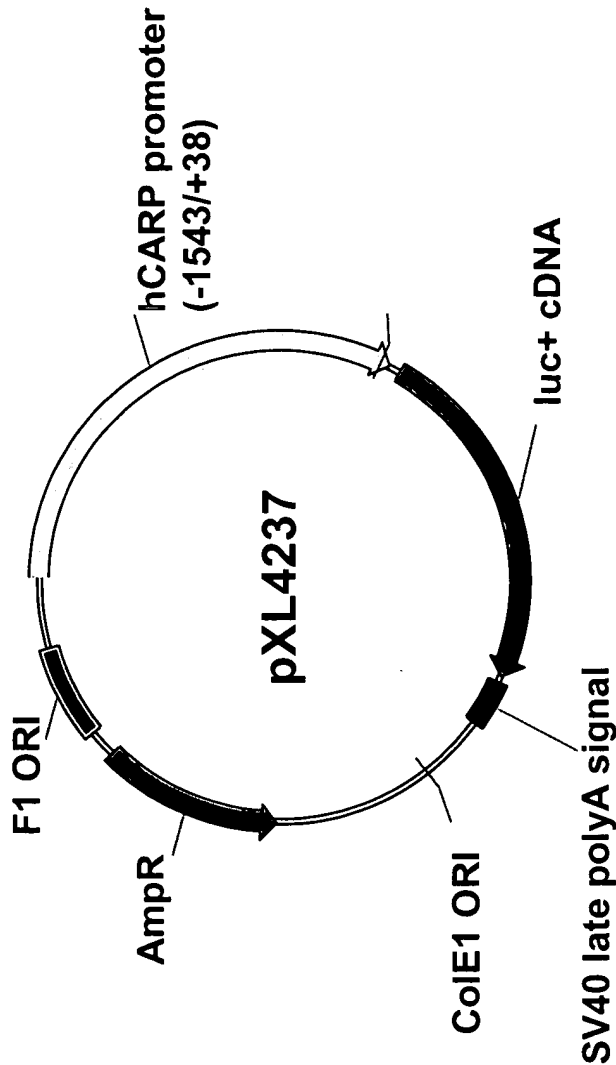


FIGURE 14

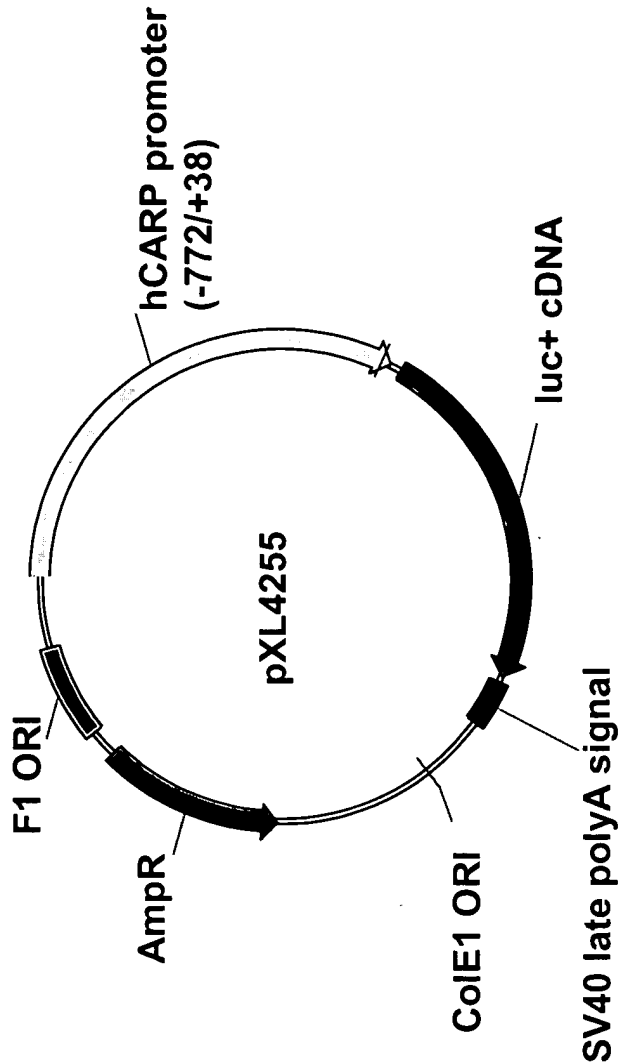


FIGURE 15

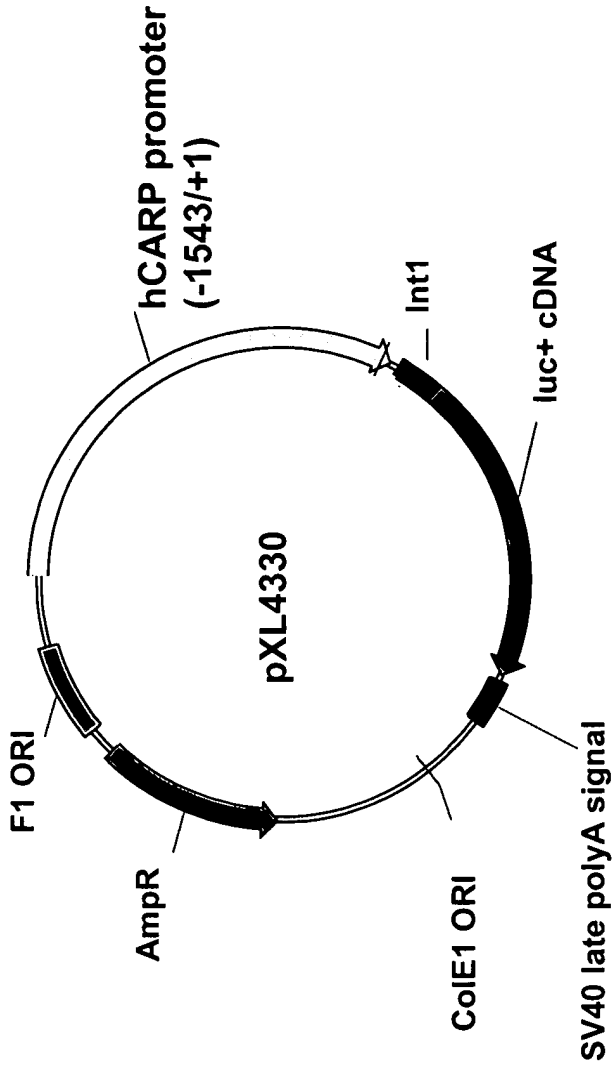


FIGURE 16

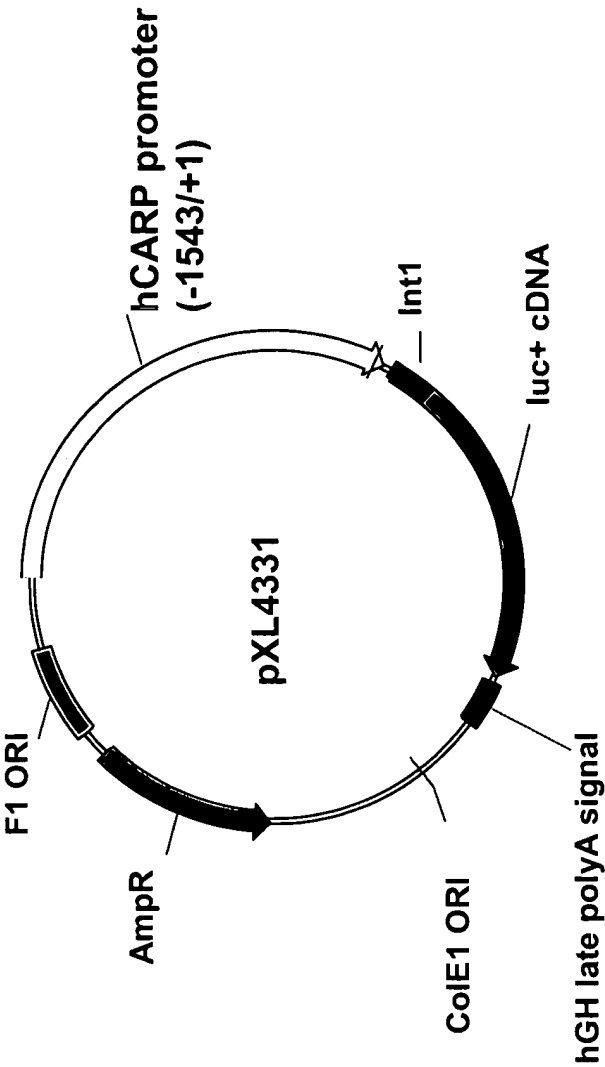


FIGURE 17

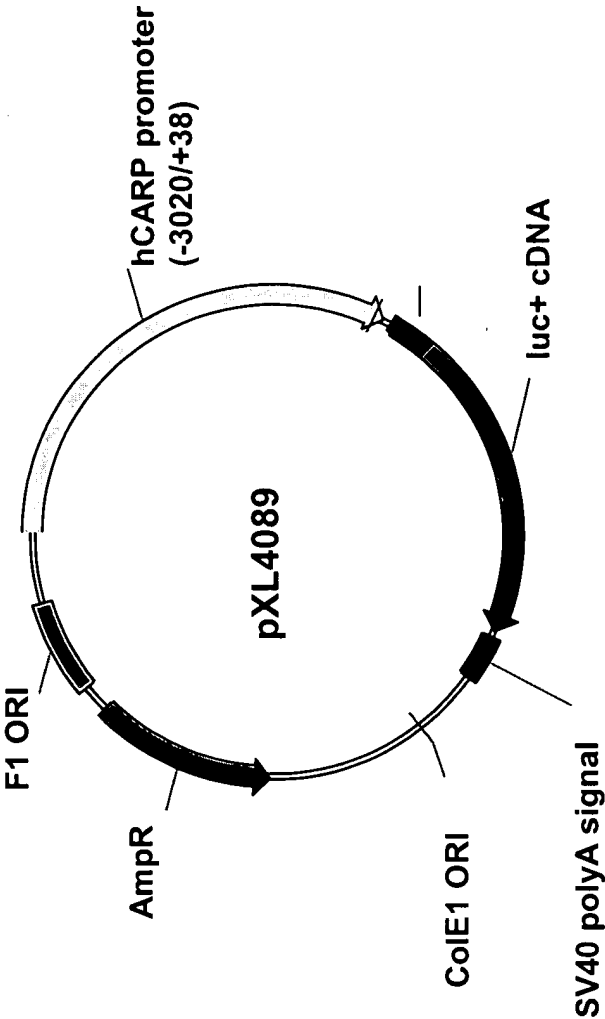


FIGURE 18

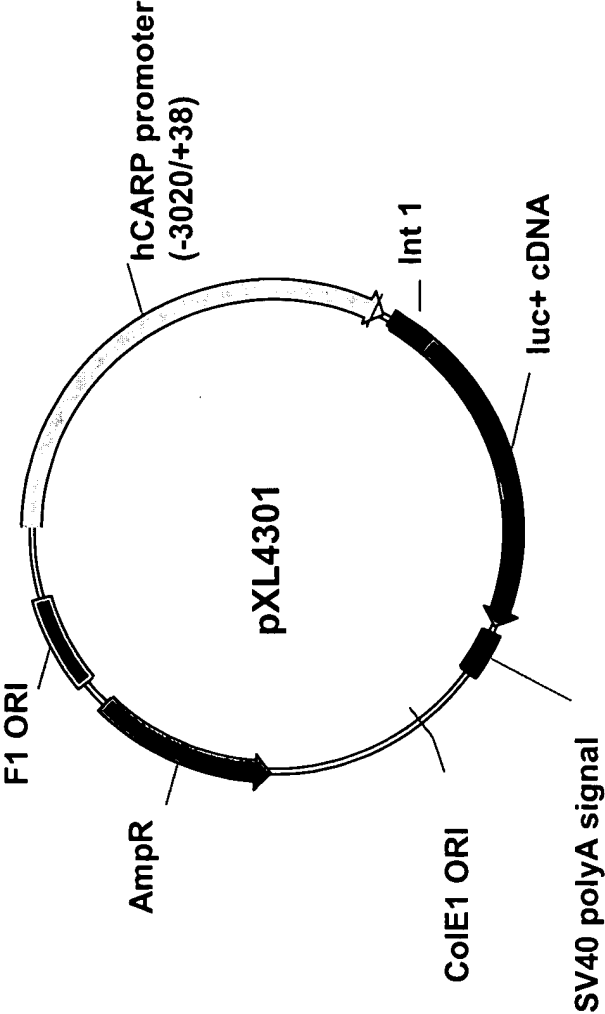


FIGURE 19

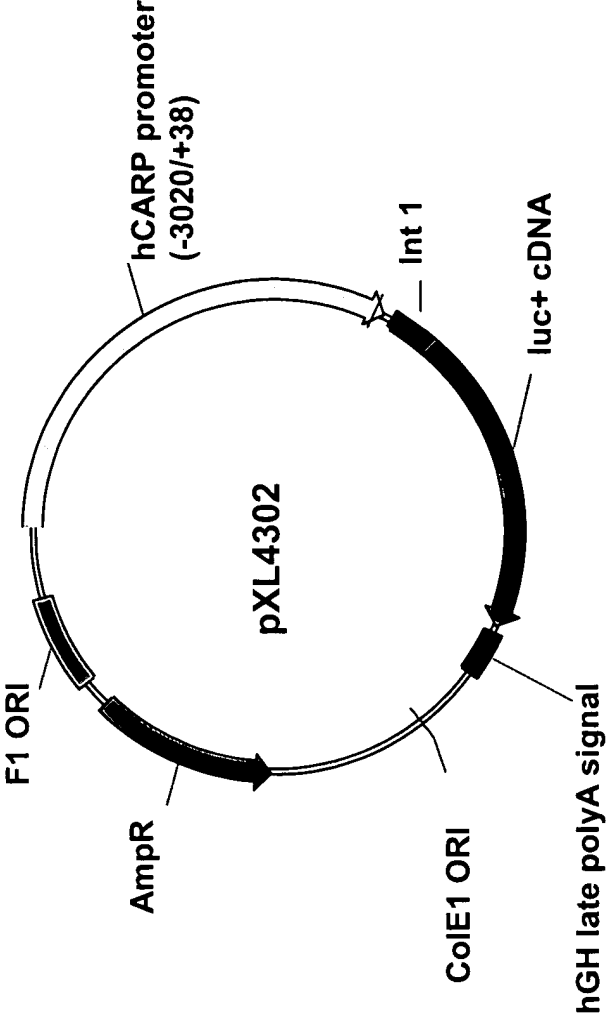


FIGURE 20

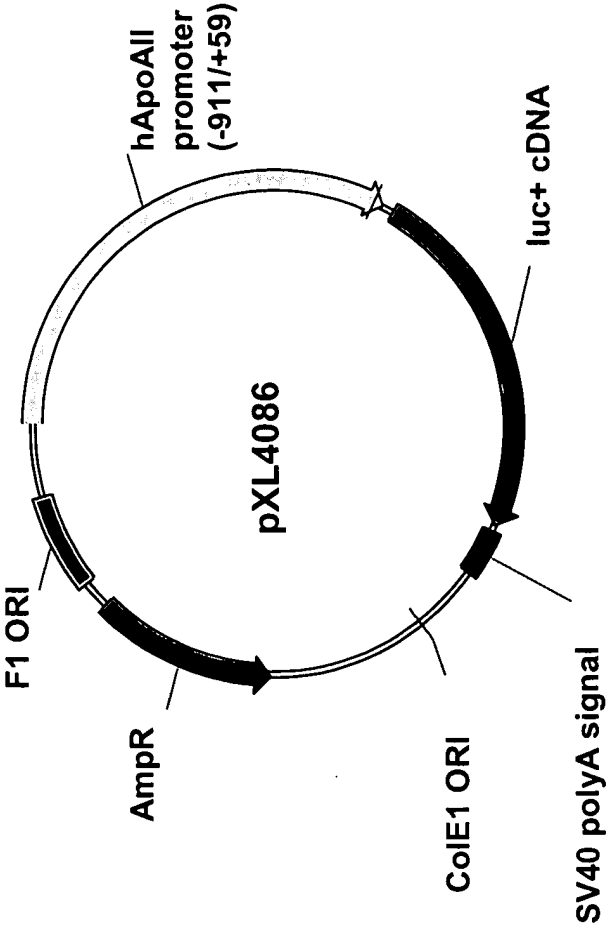


FIGURE 21

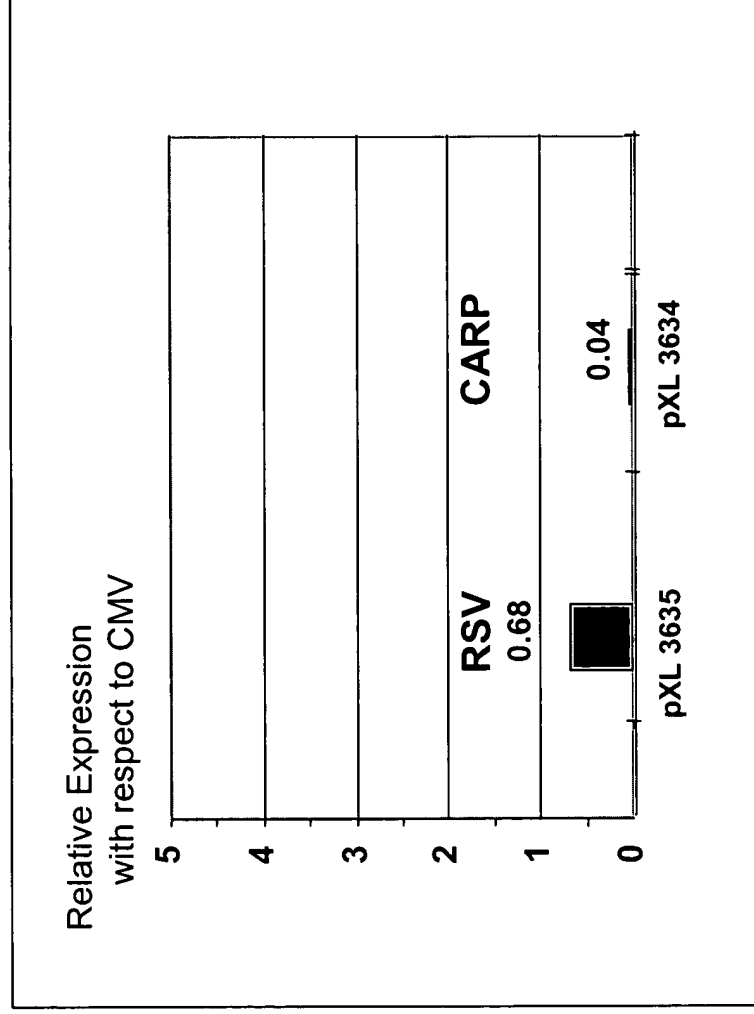


FIGURE 22

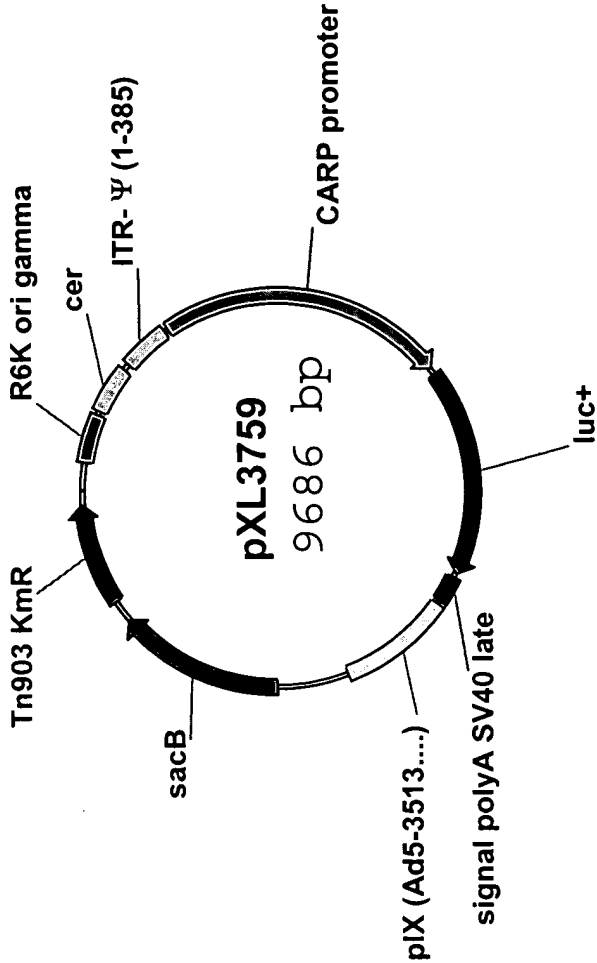


Figure 22A

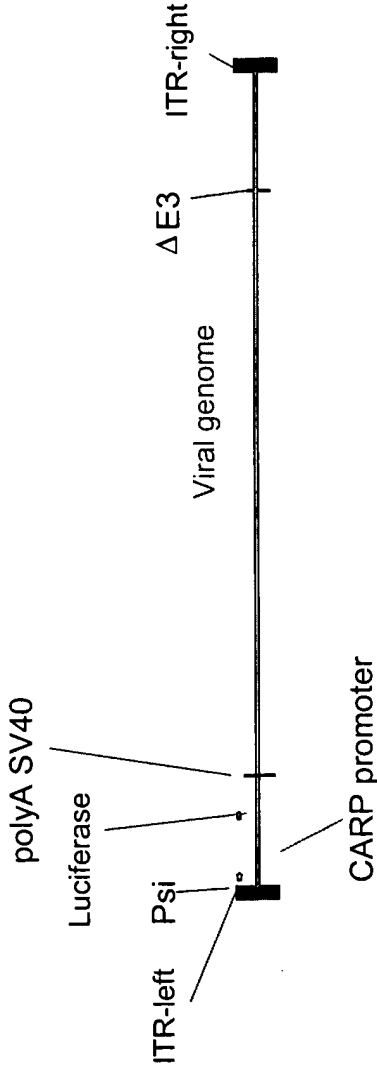


Figure 22B

FIGURE 23

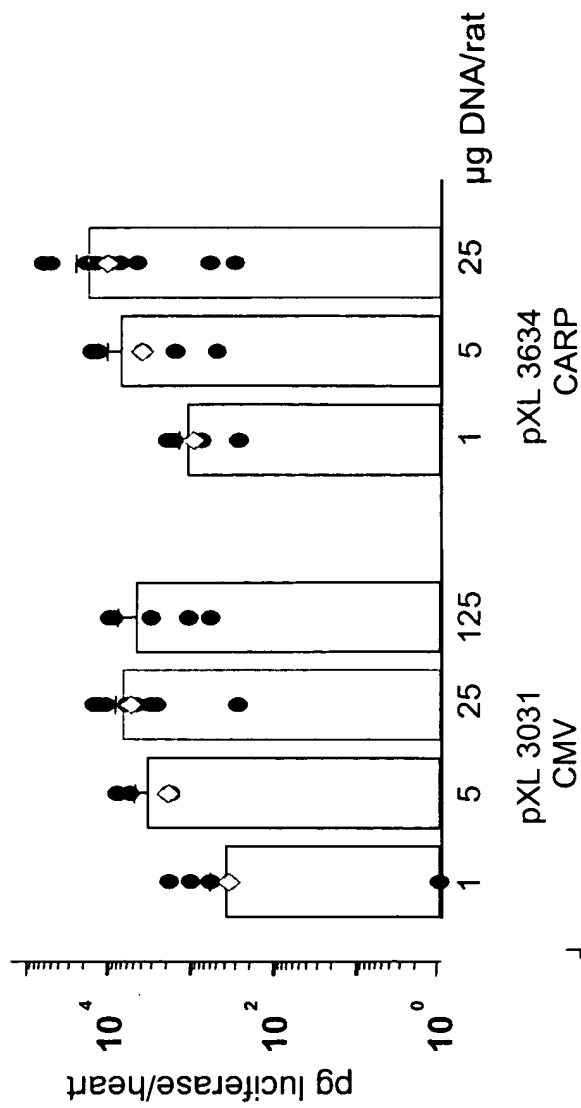


Figure 23A

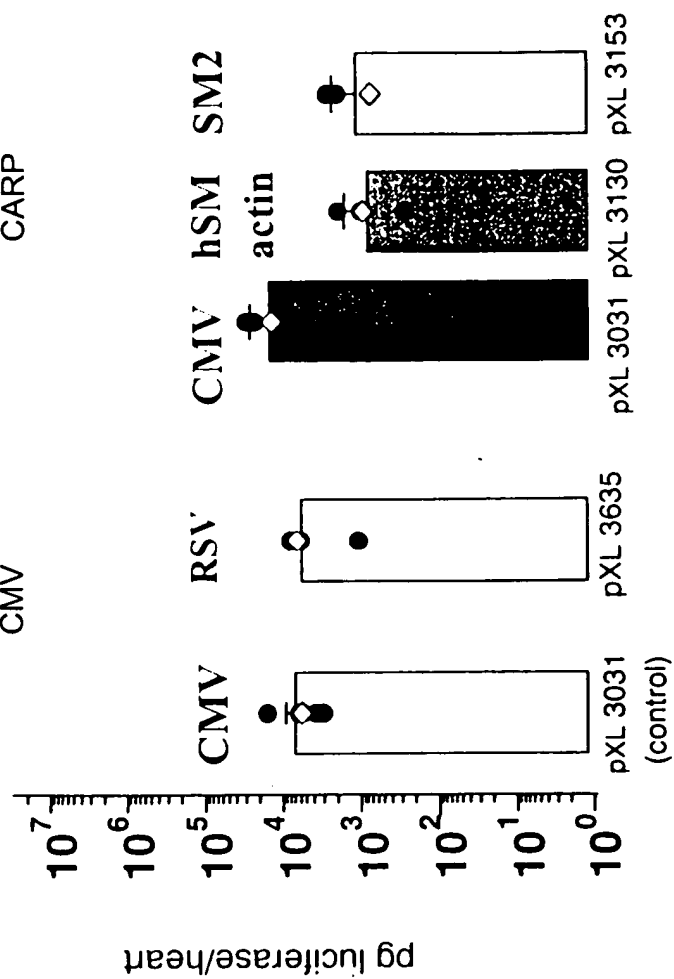
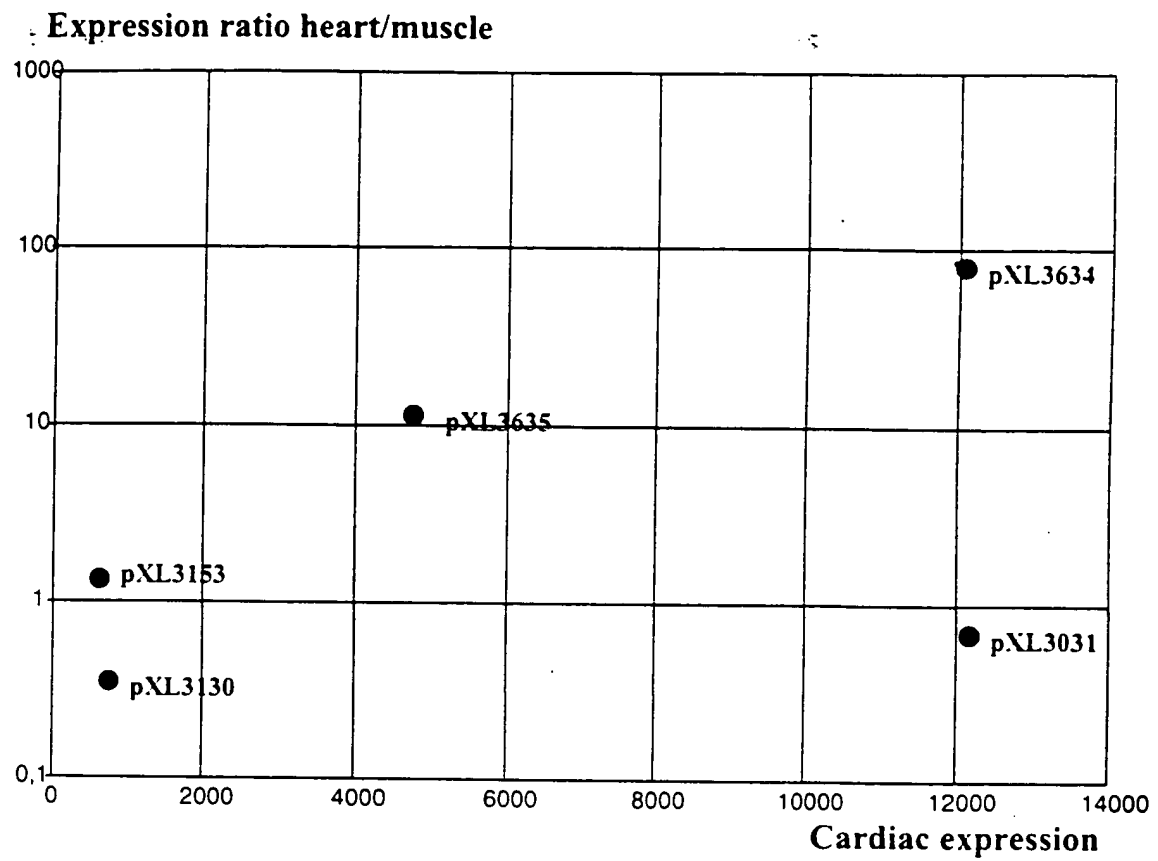


Figure 23B

FIGURE 24



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FIGURE 25

DESIGNATION			EXPRESSION CASSETTES			GRAPHIC PROFILE
NAME	LENGTH IN BASE PAIRS	PROMOTER	5' UTR	GDS	3'UTR	
Full length human CARP plasmids						
pXL4089	5958	hCARP (-3020/+1)	+1/+38 hCARP gene (+1/+739, Δ+119/+645) hcard. α-actin (+1/+739, Δ+119/+645) hcard. α-actin	Luc+	SV40 late polyA	
pXL4301	6141	hCARP (-3020/+1)		Luc+	SV40 late polyA	
pXL4302	6161	hCARP (-3020/+1)		Luc+	hGH late polyA	
5' deleted human CARP plasmids						
pXL4254	5635	hCARP (-2702/+1)	+1/+38 hCARP gene (+1/+739, Δ+119/+645) hcard. α-actin (+1/+739, Δ+119/+645) hcard. α-actin	Luc+	SV40 late polyA	
pXL4253	5038	hCARP (-2108/+1)		Luc+	SV40 late polyA	
pXL4269	4943	hCARP (-2011/+1)		Luc+	SV40 late polyA	
pXL4237	4477	hCARP (-1543/+1)		Luc+	SV40 late polyA	
pXL4255	3706	hCARP (-772/+1)		Luc+	SV40 late polyA	
pXL4330	4660	hCARP (-1543/+1)		Luc+	SV40 late polyA	
pXL4331	4680	hCARP (-1543/+1)		Luc+	hGH late polyA	
Cardiac α-actin plasmids						
pXL4055	3766	m card. α-actin (-658/+1)	+1/+113 m card. α-actin + 66bp polylinker (+1/+739, Δ+119/+645) hcard. α-actin (+1/+739, Δ+119/+645) hcard. α-actin	Luc+	SV40 late polyA	
pXL4315	3751	h card. α-actin (-626/+1)		Luc+	SV40 late polyA	
pXL4332	3771	h card. α-actin (-626/+1)		Luc+	hGH late polyA	
Human ApoAII plasmid						
pXL4086	3845	hApoAII (-911/+59)	+1/+59 hApoAII gene	Luc+	SV40 late polyA	
CMV plasmid						
pXL3031	3671	CMV (-522/+1)	+1/+72 CMV gene	Luc+	SV40 late polyA	

FIGURE 26

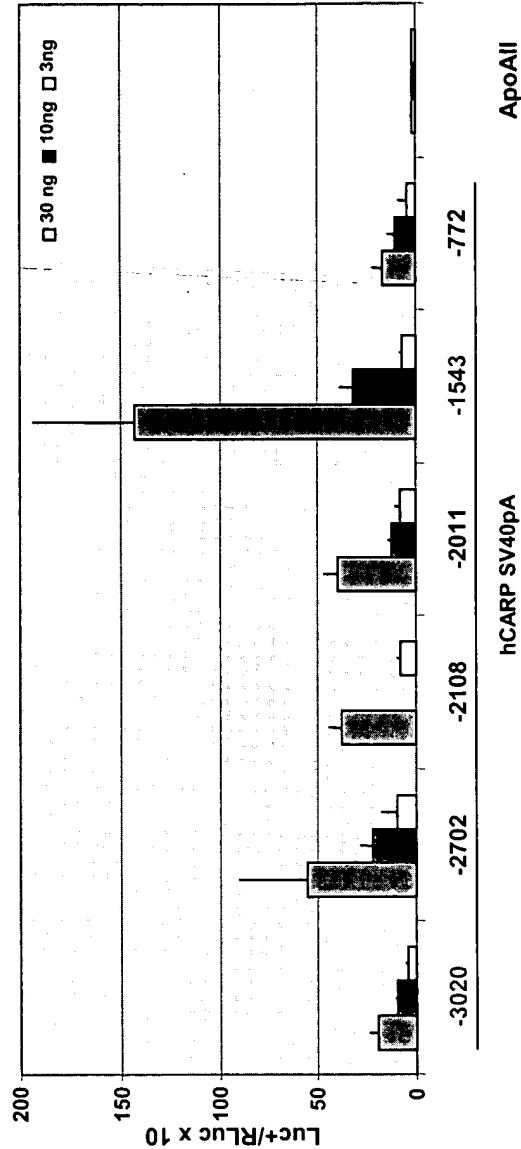


FIGURE 27

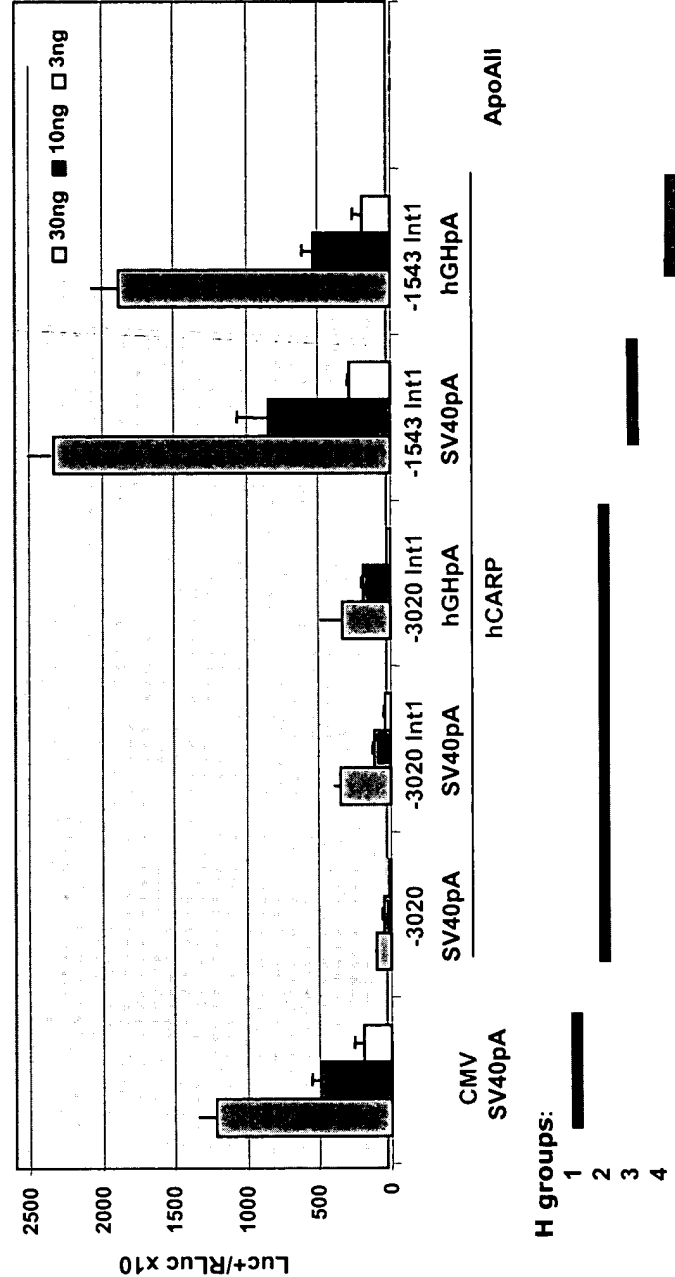


FIGURE 28

CMV SV40pA		diff.H9C2 100	MDCK 100
hCARP-3020	SV40pA	8	1.1
hCARP-1543	SV40pA	8	1.8
hCARP-3020	Int1 SV40pA	30	2.7
hCARP-1543	Int1 SV40pA	170	-
h cardiac α -actin Int1	SV40pA	180	3.2
ApoAII		3	4

FIGURE 29

Efficacy of different tissue specific promoters on luciferase expression in SD rats after Intracardiac injection

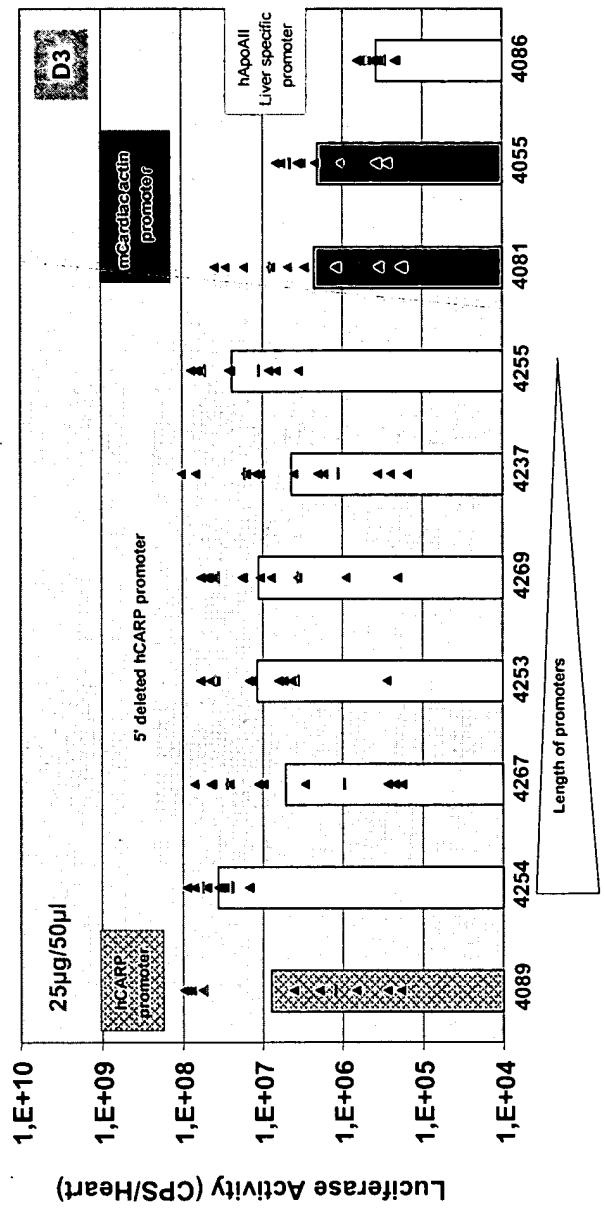


FIGURE 30

Human cardiac α -actin 5'UTR (+1/+739): SEQ ID NO: 8

```

agagcccgt gccgccggag ccgagccgac ccgccccgcc gacggtgagt cagcgccccg ccctccgcgt tcac
tcctcgctg gtccgcgggc cgcgccggac gccagccccg cgcgccacc tggccagccc ggcccgcatt cagccaaggc
cccagctcct gccgctctgc gactgccttt tttttttttt ttttaaagcc cacacttttt gatttgggtc taacttggtt
tgtcctgggc gttggtcttc gcaggacctc gcaggggctc taagaagggg aattttgtgg ctccccaagg ggcttttggg
tcctactct cgtgcgcttt cccctccatc tggggcacag gcatggcgat atggacaggg ctggagatcg agttcccagt
tcgtgaaaag gaagaaagt aaagggtgg ggaggactaa ggggctgggt ttcttgggtc ctccttgca cctggcacc
tagctggaac tcctggccag ggagcctggg tggattcctc tgcccttctc tgtccccagt ctcctccgcg gcttcttccc
tcccttttat gattcgaggg gaaggagggt ggcaggagtg ttccccgcc aacccctgt ccagtccca caacccctt
ctgctctgtc ctgtcctctg ggtgcggaga aggccagctg cacaggcagc taagcgtggt ccgccctccc ctcctcaacc
tgcagaacct cctgaagctg tgcca

```

Human cardiac α -actin 5'UTR (+1/+739, Δ +119/+645): SEQ ID NO: 9

```

agagcccgt gccgccggag ccgagccgac ccgccccgcc gacggtgagt cagcgccccg ccctccgcgt tcactcctcg
cctggctccg gggccgcgcc ggagccagc cccgcgccgg ctagcctgtc ctctgggtgc ggagaaggcc agctgcacag
gcagctaagc gtggtccgcc ctcccctcct caacctgacg aacccctga agctgtgcca cc

```

Human GH polyA 3'UTR sequence: SEQ ID NO: 10

```

ctgccccggg ggcacccctg tgacccctcc ccagtgcctc tcctggccct ggaagttgcc actccagtgc ccaccagcct
tgtcctaata aaattaagtt gcatcatttt gtctgactag gtgtccttct ataattat ggggtggagg ggggtggtat
ggagcaaggg gcaagttggg aagacaacct gtagggcctg cggggtctat tcgggaacc

```

FIGURE 31

Human CARP promoter (-3020/+38) SEQ ID NO: 13

```

1   ttgcttttagg tgctacttct ctgcttctca ctttctccag ctataacccat ggtcctaatt ctagtcacat gtcatttcac
81  ccatggaaat gcataaatcc tgaggggagtg gggaaaaggc tcatgggggtg acactggaga agctcaggga tgcttccttt
161 actctttctg gttggagatg ggtgatgcca agttgcttta tgattgtaga accaactagg acctttattg ttttaattca
241 tcttagtaag gatagattat gtcagattg aggtatgat aaagccaaat acacaaatat aagaatttac accactgggt
321 gaacttttat gggaaggatg cttctgaaaa acaaatgaca gaaaactctc cgccaggggga atttttttct caattttgat
401 gaataagaac gatttgaaaa tacaatgggt gttgttttta tctttttaga gagctaaagg tgcctagaat ctcttttcaa
481 aaagcagatt ctctcatggt ttttttcttt atttgtgtc atattctttt tacatcttct gaccacttat cctcaagttg
561 tacctctcat gttttataat gacaagctgg atcaacatgg gaaaagggtg aactggcagt gatttcacca gccctgacat
641 ccttgcatcc accagcgtgc tcctttaagt tcagcccat ccatcaactc atcttcaagt gtcacctct gcaaaagttt
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961 caggactctt caacctagca ttcaccaact agctgtgcat ctgcagcaag ttacttaatg tttctttgcc tcagcatcct
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1521 tacaggaggt actgggaggg tcctcttttg tcaatgtttt gtcttggggt ggggagtcga tgtcttctca aagtttcaga
1601 aacaccatcc actgactgag cattcaaggg gcaagaggag aatggcagcc acatttggtg attgggtgag tttggggaga
1681 aatagacaca caaagggtcaa acataacttc ctaattaaca ctccctcca ttcacaattc ccttctocca ttcttctctc
1761 ctttctttta ctgaaaaaaa cccagttttt cctgaaacta taaaaatacc ccagtatttt tacataattt acacctcaaa
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2161 gatgggattt tgccatgttg cccaggctag tattgaactc ctaagctaag caatcttctt gtctctgccc cccaaaatgt
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3041 ttccacgaca gaaaaacc

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